Patent Claims:

1. Method for refining aqueous suspended paper fibers or pulp fibers, whereby the aqueous suspended fibers are led through at least one refining zone which is located between the inside wall of a rotating refiner drum and at least one refiner roll (2, 2') rotating with said drum,

   Whereby the refiner roll (2, 2') and the refiner drum are pressed against each other and whereby mechanical refining force is transferred to the fibers so that the strength properties of the paper produced from this are altered,

   characterized in that

   a fibrous stock layer (8) is formed on the inside wall of the rotating refiner by the aqueous suspended paper fibers,

   that the fibrous stock layer (8) is attached to the inside wall due to rotation and

   that a continuous flow of liquid with the aqueous suspended paper fibers is supplied to the fibrous stock layer (8) and is again discharged from it.

2. Method in accordance with claim 1,

   characterized in that

   the refiner roll (2, 2') is equipped with bars (3) whose axial extension relative to the axial extension of the refiner roll (2, 2') is at an angle (α) between 0 and 45°.

3. Method in accordance with claim 2,

   characterized in that

   a refiner drum is utilized whose inside wall is not equipped refiner bars that engage between the refiner bars (3) of the refiner roll (2, 2').

4. Method in accordance with claim 1, 2 or 3
characterized in that
the relative speed between the inside wall of the refiner drum and the refiner rolls (2, 2') - viewed in circumferential direction of the refiner cylinder - at the location where the two refiner rolls (2, 2') are closest to each other in the refiner zone, is adjusted to a maximum of 10% of the circumferential speed of the inside wall of the refiner cylinder (1).

5. Method in accordance with claim 1, 2, 3 or 4
characterized in that
the refiner roll (2, 2') and refiner drum are pressed together with such force that line forces of between 5 and 30 N/mm, preferably at least 15 N/mm are created.

6. Method in accordance with one of the aforementioned claims
characterized in that
the refiner drum is rotated with a circumferential speed on its inside wall of 20 – 40 m/s, preferably approximately 30 m/s.

7. Method in accordance with one of the aforementioned claims,
characterized in that
the center line of the refiner drum relative to the horizontal position is adjusted to an angle of 0 - 5°.

8. Method in accordance with claim 7,
characterized in that
The refiner drum is in horizontal position.

9. Method in accordance with one of the aforementioned claims,
characterized in that
that the paper fibers within the fibrous stock layer (8) are continuously transported in an axial direction from one end of the refiner drum to the other.

10. Method in accordance with claim 9,
characterized in that
the aqueous suspended paper fibers in a fibrous stock suspension (S) are supplied through at least one pipeline (9) that feeds into the refiner drum on one face side (13); they are refined and are then removed through at least one outlet opening (10) on the opposite face of the refiner drum.

11. Method in accordance with one of the claims 1 through 8,
characterized in that
the paper fibrous suspension (S) of the liquid layer (8) that is to be refined is supplied at at least two axially distanced location inside the refiner drum.

12. Method in accordance with claim 11,
characterized in that
the supply occurs through pipelines (9) which discharge near the liquid layer (8).

13. Method in accordance with claim 11 or 12,
characterized in that
the locations are distributed uniformly along the axial extension of the refiner drum.

14. Method in accordance with one of the aforementioned claims,
characterized in that

the refined paper fibrous suspension (S') is removed from the refiner drum through one or several overflow openings (20) which are located on the faces (23) of the refiner drum.

15. Method in accordance with claim 14,
characterized in that
the overflow openings (20) define the thickness of the liquid layer (8).

16. Method in accordance with one of the aforementioned claims,
characterized in that
a medium consistency of 2 to 6% is adjusted in the refining zone.

17. Method in accordance with one of the aforementioned claims,
characterized in that
a refiner cylinder (1) is utilized as a refiner drum.

18. Method in accordance with claim17
characterized in that
the axial transportation of the fibrous stock layer (8) occurs by means of at least one transport device inside the refiner cylinder (1), extending along its length.

19. Method in accordance with claim 18,
characterized in that
a stationary cross bar (14) equipped with guide vanes (15) that dip into the fibrous stock layer (8) is utilized as a transport device.

20. Method in accordance with claim 18,

characterized in that

a stationary doctor bar (14') equipped with guide vanes (15') that dip into the fibrous stock layer (8) is utilized as a transport device.

21. Method in accordance with one of the claims 1 through 16,

characterized in that

the inside wall of the refiner drum is conical.

22. Method in accordance with claim 21,

characterized in that

the conical refiner drum (18) has an inclined angle (β) of between 1° and 5°.